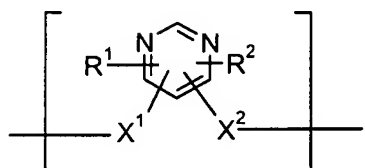


In the claims:

1. **(withdrawn)** A polymer comprising a repeating unit of the formula

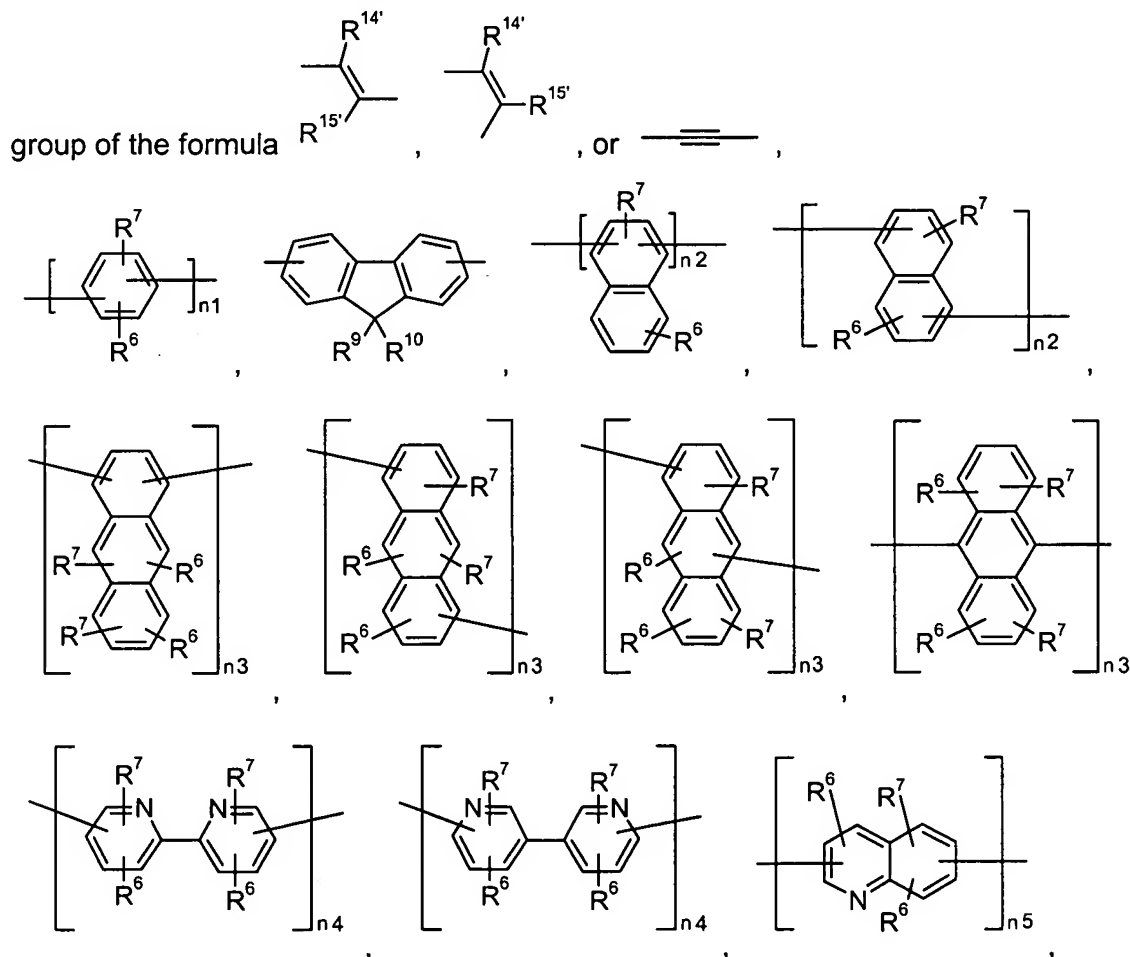


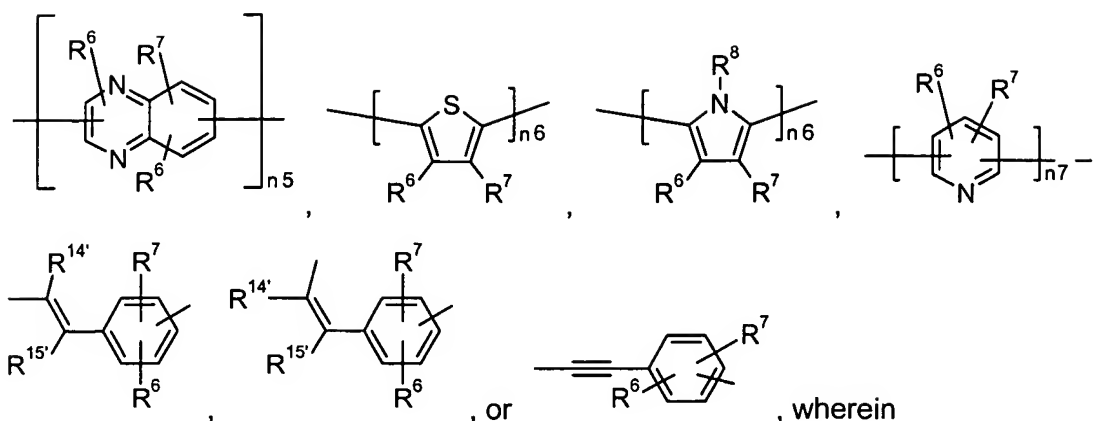
(I); wherein

$R^1$  is  $C_{6-24}$ aryl or  $C_{2-20}$  heteroaryl each of which optionally can be substituted, and  $R^2$  is H,

$X^1$  and  $X^2$  are independently of each other a divalent linking group.

2. **(withdrawn)** A polymer according to claim 1, wherein  $X^1$  and  $X^2$  are independently of each other a





$n_1$ ,  $n_2$ ,  $n_3$ ,  $n_4$ ,  $n_5$ ,  $n_6$  and  $n_7$  are integers of 1 to 10,  $R^6$  and  $R^7$  are independently of each other H,  $C_1$ - $C_{18}$ alkyl,  $C_1$ - $C_{18}$ alkyl which is substituted by E and/or interrupted by D,  $C_5$ - $C_{12}$ cycloalkyl,  $C_5$ - $C_{12}$ cycloalkyl, which is substituted by E,  $C_6$ - $C_{24}$ aryl,  $C_6$ - $C_{24}$ aryl which is substituted by E,  $C_2$ - $C_{20}$ heteroaryl,  $C_2$ - $C_{20}$ heteroaryl which is substituted by E,  $C_2$ - $C_{18}$ alkenyl,  $C_2$ - $C_{18}$ alkynyl,  $C_1$ - $C_{18}$ alkoxy,  $C_1$ - $C_{18}$ alkoxy which is substituted by E and/or interrupted by D,  $C_7$ - $C_{25}$ aralkyl, or  $-CO-R^{28}$ ,

$R^8$  is  $C_1$ - $C_{18}$ alkyl,  $C_1$ - $C_{18}$ alkyl which is substituted by E and/or interrupted by D,  $C_6$ - $C_{24}$  aryl, or  $C_7$ - $C_{25}$ aralkyl,

$R^9$  and  $R^{10}$  are independently of each other  $C_1$ - $C_{18}$ alkyl,  $C_1$ - $C_{18}$ alkyl which is substituted by E and/or interrupted by D,  $C_6$ - $C_{24}$ aryl,  $C_6$ - $C_{24}$ aryl which is substituted by E,  $C_2$ - $C_{20}$ heteroaryl,  $C_2$ - $C_{20}$ heteroaryl which is substituted by E,  $C_2$ - $C_{18}$ alkenyl,  $C_2$ - $C_{18}$ alkynyl,  $C_1$ - $C_{18}$ alkoxy,  $C_1$ - $C_{18}$ alkoxy which is substituted by E and/or interrupted by D, or  $C_7$ - $C_{25}$ aralkyl, or

$R^9$  and  $R^{10}$  form a ring, which may optionally be substituted by  $R^6$ ,

$R^{14'}$  and  $R^{15'}$  are independently of each other H,  $C_1$ - $C_{18}$ alkyl,  $C_1$ - $C_{18}$ alkyl which is substituted by E and/or interrupted by D,  $C_6$ - $C_{24}$ aryl,  $C_6$ - $C_{24}$ aryl which is substituted by E,  $C_2$ - $C_{20}$ heteroaryl, or  $C_2$ - $C_{20}$ heteroaryl which is substituted by E,

D is  $-CO-$ ,  $-COO-$ ,  $-S-$ ,  $-SO-$ ,  $-SO_2-$ ,  $-O-$ ,  $-NR^{25}-$ ,  $-SiR^{30}R^{31}-$ ,  $-POR^{32}-$ ,  $-CR^{23}=CR^{24}-$ , or  $-C\equiv C-$ , and E is  $-OR^{29}$ ,  $-SR^{29}$ ,  $-NR^{25}R^{26}$ ,  $-COR^{28}$ ,  $-COOR^{27}$ ,  $-CONR^{25}R^{26}$ ,  $-CN$ ,  $-OCOOR^{27}$ , or halogen, wherein

$R^{23}$ ,  $R^{24}$ ,  $R^{25}$  and  $R^{26}$  are independently of each other H,  $C_6$ - $C_{18}$ aryl,  $C_6$ - $C_{18}$ aryl which is substituted by  $C_1$ - $C_{18}$ alkyl,  $C_1$ - $C_{18}$ alkoxy,  $C_1$ - $C_{18}$ alkyl, or  $C_1$ - $C_{18}$ alkyl which is interrupted by  $-O-$ , or

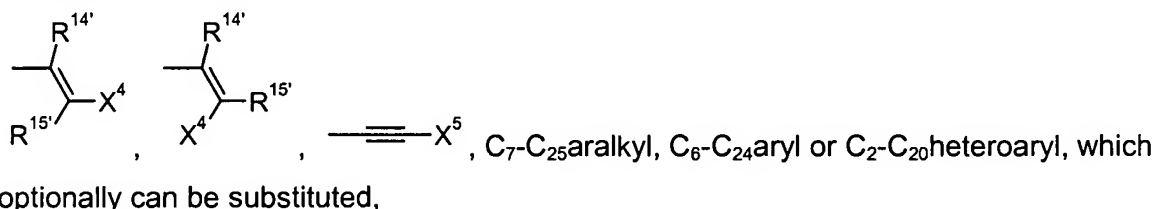
$R^{25}$  and  $R^{26}$  together form a five or six membered ring,  $R^{27}$  and  $R^{28}$  are independently of each other H,  $C_6$ - $C_{18}$ aryl,  $C_6$ - $C_{18}$ aryl which is substituted by  $C_1$ - $C_{18}$ alkyl, or  $C_1$ - $C_{18}$ alkoxy,  $C_1$ - $C_{18}$ alkyl, or  $C_1$ - $C_{18}$ alkyl which is interrupted by  $-O-$ ,

$R^{29}$  is H,  $C_6-C_{18}$ aryl,  $C_6-C_{18}$ aryl, which is substituted by  $C_1-C_{18}$ alkyl,  $C_1-C_{18}$ alkoxy,  $C_1-C_{18}$ alkyl, or  $C_1-C_{18}$ alkyl which is interrupted by  $-O-$ ,

$R^{30}$  and  $R^{31}$  are independently of each other  $C_1-C_{18}$ alkyl,  $C_6-C_{18}$ aryl, or  $C_6-C_{18}$ aryl, which is substituted by  $C_1-C_{18}$ alkyl, and

$R^{32}$  is  $C_1-C_{18}$ alkyl,  $C_6-C_{18}$ aryl, or  $C_6-C_{18}$ aryl, which is substituted by  $C_1-C_{18}$ alkyl.

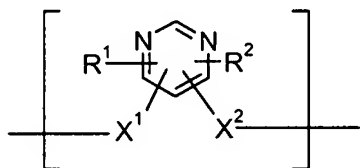
3. **(withdrawn)** A polymer according to claim 2, wherein  $R^1$  and  $R^2$  are independently of each other H,  $C_1-C_{18}$ alkyl,  $C_1-C_{18}$ alkyl which is substituted by E and/or interrupted by D,  $C_2-C_{18}$ alkenyl,  $C_2-C_{18}$ alkynyl,  $C_1-C_{18}$ alkoxy,  $C_1-C_{18}$ alkoxy which is substituted by E and/or interrupted by D,



$X^4$  is  $C_1-C_{18}$ alkyl,  $C_1-C_{18}$ alkyl which is substituted by E and/or interrupted by D,  $C_6-C_{24}$ aryl, which optionally can be substituted,

$X^5$  is  $C_1-C_{18}$ alkyl,  $C_6-C_{24}$ aryl,  $C_6-C_{24}$ aryl substituted by  $-OC_1-C_{18}$ alkyl or  $-OC_6-C_{24}$ aryl.

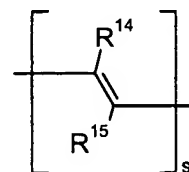
4. **(currently amended)** A polymer according to claim 1, comprising a repeating unit of the formula



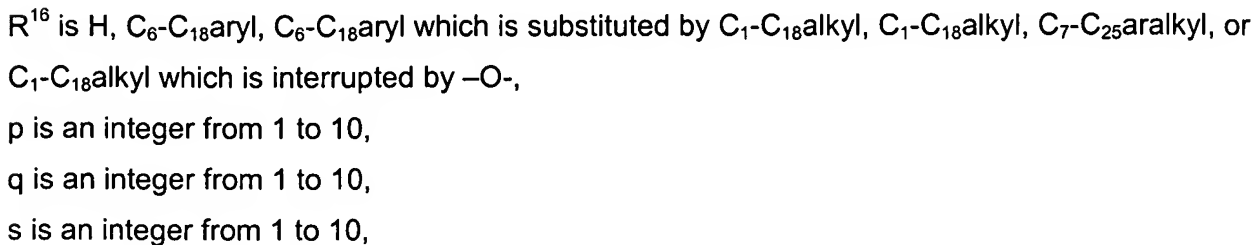
(I); wherein

$R^1$  and  $R^2$  are independently of each other an organic substituent, is  $C_6-C_{24}$ aryl or  $C_2-C_{20}$  heteroaryl each of which optionally can be substituted, and  $R^2$  is H,

$X^1$  and  $X^2$  are independently of each other a divalent linking group which co-polymer also



comprises a co-monomer T which is selected from the group consisting of



R<sup>6</sup> and R<sup>7</sup> are independently of each other H, C<sub>1</sub>-C<sub>18</sub>alkyl, C<sub>1</sub>-C<sub>18</sub>alkyl which is substituted by E and/or interrupted by D, C<sub>5</sub>-C<sub>12</sub>cycloalkyl, C<sub>5</sub>-C<sub>12</sub>cycloalkyl which is substituted by E, C<sub>6</sub>-C<sub>24</sub>aryl, C<sub>6</sub>-C<sub>24</sub>aryl which is substituted by E, C<sub>2</sub>-C<sub>20</sub>heteroaryl, C<sub>2</sub>-C<sub>20</sub>heteroaryl which is substituted by E, C<sub>2</sub>-C<sub>18</sub>alkenyl, C<sub>2</sub>-C<sub>18</sub>alkynyl, C<sub>1</sub>-C<sub>18</sub>alkoxy, C<sub>1</sub>-C<sub>18</sub>alkoxy which is substituted by E and/or interrupted by D, C<sub>7</sub>-C<sub>25</sub>aralkyl, or -CO-R<sup>28</sup>,

R<sup>8</sup> is C<sub>1</sub>-C<sub>18</sub>alkyl, C<sub>1</sub>-C<sub>18</sub>alkyl which is substituted by E and/or interrupted by D, C<sub>6</sub>-C<sub>24</sub>aryl, or C<sub>7</sub>-C<sub>25</sub>aralkyl,

R<sup>9</sup> and R<sup>10</sup> are independently of each other C<sub>1</sub>-C<sub>18</sub>alkyl, C<sub>1</sub>-C<sub>18</sub>alkyl which is substituted by E and/or interrupted by D, C<sub>6</sub>-C<sub>24</sub>aryl, C<sub>6</sub>-C<sub>24</sub>aryl which is substituted by E, C<sub>2</sub>-C<sub>20</sub>heteroaryl, C<sub>2</sub>-C<sub>20</sub>heteroaryl which is substituted by E, C<sub>2</sub>-C<sub>18</sub>alkenyl, C<sub>2</sub>-C<sub>18</sub>alkynyl, C<sub>1</sub>-C<sub>18</sub>alkoxy, C<sub>1</sub>-C<sub>18</sub>alkoxy which is substituted by E and/or interrupted by D, or C<sub>7</sub>-C<sub>25</sub>aralkyl, or

R<sup>9</sup> and R<sup>10</sup> form a five- or six-membered ring, which may optionally be substituted by R<sup>6</sup>,

R<sup>14'</sup> and R<sup>15'</sup> are independently of each other H, C<sub>1</sub>-C<sub>18</sub>alkyl, C<sub>1</sub>-C<sub>18</sub>alkyl which is substituted by E and/or interrupted by D, C<sub>6</sub>-C<sub>24</sub>aryl, C<sub>6</sub>-C<sub>24</sub>aryl which is substituted by E, C<sub>2</sub>-C<sub>20</sub>heteroaryl, or C<sub>2</sub>-C<sub>20</sub>heteroaryl which is substituted by E,

D is -CO-, -COO-, -S-, -SO-, -SO<sub>2</sub>-, -O-, -NR<sup>25</sup>-, -SiR<sup>30</sup>R<sup>31</sup>-, -POR<sup>32</sup>-, -CR<sup>23</sup>=CR<sup>24</sup>-, or -C≡C-, and

E is -OR<sup>29</sup>-, -SR<sup>29</sup>-, -NR<sup>25</sup>R<sup>26</sup>-, -COR<sup>28</sup>-, -COOR<sup>27</sup>-, -CONR<sup>25</sup>R<sup>26</sup>-, -CN, -OCOOR<sup>27</sup>-, or halogen,

wherein

R<sup>23</sup>, R<sup>24</sup>, R<sup>25</sup> and R<sup>26</sup> are independently of each other H, C<sub>6</sub>-C<sub>18</sub>aryl, C<sub>6</sub>-C<sub>18</sub>aryl which is substituted by C<sub>1</sub>-C<sub>18</sub>alkyl, C<sub>1</sub>-C<sub>18</sub>alkoxy, C<sub>1</sub>-C<sub>18</sub>alkyl, or C<sub>1</sub>-C<sub>18</sub>alkyl which is interrupted by -O-, or

R<sup>25</sup> and R<sup>26</sup> together form a five or six membered ring, R<sup>27</sup> and R<sup>28</sup> are independently of each other H, C<sub>6</sub>-C<sub>18</sub>aryl, C<sub>6</sub>-C<sub>18</sub>aryl which is substituted by C<sub>1</sub>-C<sub>18</sub>alkyl, or C<sub>1</sub>-C<sub>18</sub>alkoxy, C<sub>1</sub>-C<sub>18</sub>alkyl, or C<sub>1</sub>-C<sub>18</sub>alkyl which is interrupted by -O-,

R<sup>29</sup> is H, C<sub>6</sub>-C<sub>18</sub>aryl, C<sub>6</sub>-C<sub>18</sub>aryl, which is substituted by C<sub>1</sub>-C<sub>18</sub>alkyl, C<sub>1</sub>-C<sub>18</sub>alkoxy, C<sub>1</sub>-C<sub>18</sub>alkyl, or C<sub>1</sub>-C<sub>18</sub>alkyl which is interrupted by -O-,

R<sup>30</sup> and R<sup>31</sup> are independently of each other C<sub>1</sub>-C<sub>18</sub>alkyl, C<sub>6</sub>-C<sub>18</sub>aryl, or C<sub>6</sub>-C<sub>18</sub>aryl, which is substituted by C<sub>1</sub>-C<sub>18</sub>alkyl, and

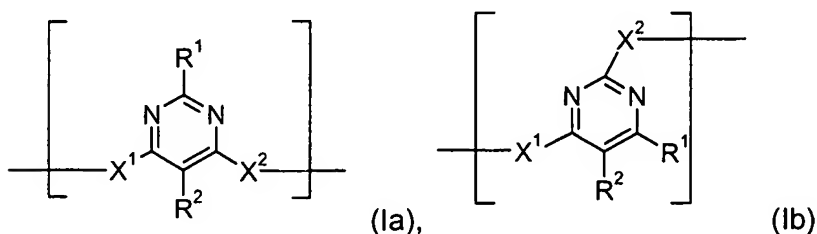
R<sup>32</sup> is C<sub>1</sub>-C<sub>18</sub>alkyl, C<sub>6</sub>-C<sub>18</sub>aryl, or C<sub>6</sub>-C<sub>18</sub>aryl, which is substituted by C<sub>1</sub>-C<sub>18</sub>alkyl,

or

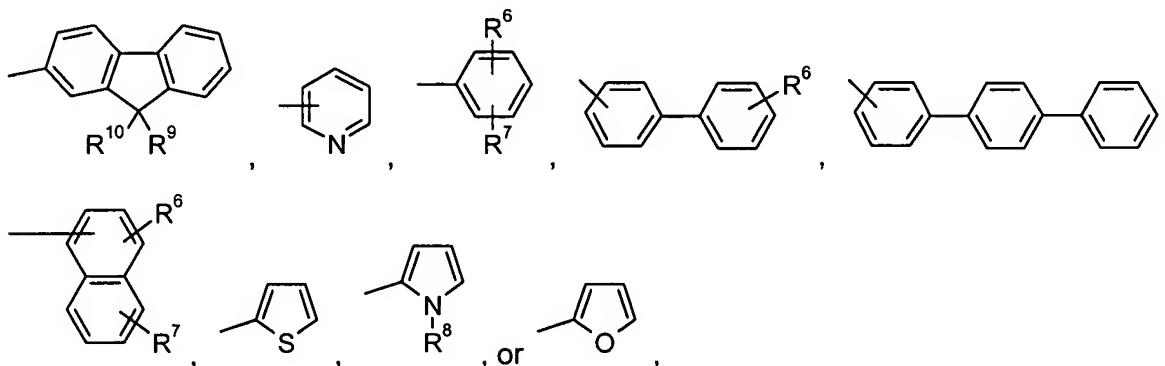
R<sup>9</sup> and R<sup>10</sup> together form a group of formula =CR<sup>100</sup>R<sup>101</sup>, wherein

$R^{100}$  and  $R^{101}$  are independently of each other H,  $C_1$ - $C_{18}$ alkyl,  $C_1$ - $C_{18}$ alkyl which is substituted by E and/or interrupted by D,  $C_6$ - $C_{24}$ aryl,  $C_6$ - $C_{24}$ aryl which is substituted by E, or  $C_2$ - $C_{20}$ heteroaryl, or  $C_2$ - $C_{20}$ heteroaryl which is substituted by E, and  
 $R^{14}$  and  $R^{15}$  are independently of each other H,  $C_1$ - $C_{18}$ alkyl,  $C_1$ - $C_{18}$ alkyl which is substituted by E and/or interrupted by D,  $C_6$ - $C_{24}$ aryl,  $C_6$ - $C_{24}$ aryl which is substituted by E, or  $C_2$ - $C_{20}$ heteroaryl,  $C_2$ - $C_{20}$ heteroaryl which is substituted by E.

5. (withdrawn) A polymer according to claim 1, comprising repeating units of formula Ia or Ib,



wherein  $R^1$  is a group of formula



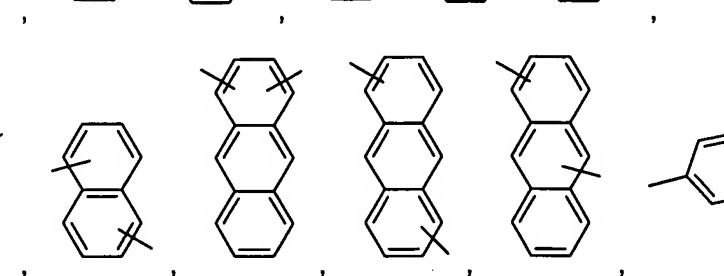

wherein  $R^2$  is H,

$R^6$  and  $R^7$  are independently of each other H,  $C_1$ - $C_{12}$ alkyl,  $C_5$ - $C_{12}$ cycloalkyl,  $C_6$ - $C_{24}$ aryl, which can be substituted by  $-O$ - $C_1$ - $C_{12}$ alkyl, or  $C_1$ - $C_{18}$ alkoxy,

$R^8$  is  $C_1$ - $C_{18}$ alkyl,  $C_1$ - $C_{18}$ alkyl interrupted by one or two oxygen atoms, or  $C_6$ - $C_{12}$ aryl, which optionally can be substituted by  $C_1$ - $C_{12}$ alkyl, or  $C_1$ - $C_{12}$ alkoxy,

$R^9$  and  $R^{10}$  are independently of each other H,  $C_1$ - $C_{12}$ alkyl, or  $C_1$ - $C_{12}$ alkoxy,

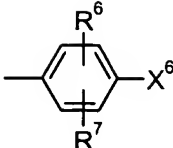
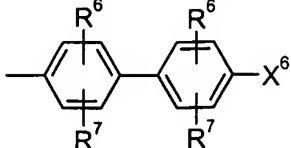
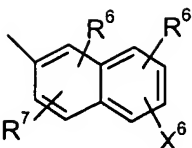
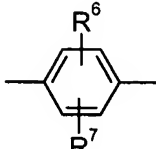
$R^9$  and  $R^{10}$  are independently of each other  $C_1$ - $C_{18}$ alkyl, especially  $C_4$ - $C_{12}$ alkyl, which can be interrupted by one or two oxygen atoms.


  
 , and
 
 , wherein R<sup>8</sup> is C<sub>1</sub>-C<sub>18</sub>alkyl,

R<sup>9</sup> and R<sup>10</sup> form a five or six membered carbocyclic ring, which optionally can be substituted by C<sub>1</sub>-C<sub>8</sub>alkyl.

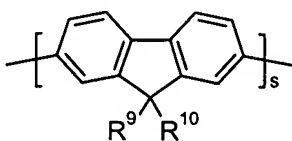
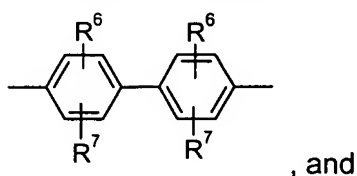
$$\left[ \begin{array}{c} \text{R}^1 \\ \diagup \quad \diagdown \\ \text{N} \quad \text{N} \\ \diagdown \quad \diagup \\ \text{C} \quad \text{C} \\ \diagup \quad \diagdown \\ \text{X}^1 \quad \text{X}^2 \\ \diagdown \quad \diagup \\ \text{R}^2 \end{array} \right]_x \quad (\text{la}), \text{ or} \quad \left[ \begin{array}{c} \text{X}^2 \\ \diagup \quad \diagdown \\ \text{N} \quad \text{N} \\ \diagdown \quad \diagup \\ \text{C} \quad \text{C} \\ \diagup \quad \diagdown \\ \text{X}^1 \quad \text{R}^1 \\ \diagdown \quad \diagup \\ \text{R}^2 \end{array} \right]_x \quad (\text{lb}), \text{ and}$$

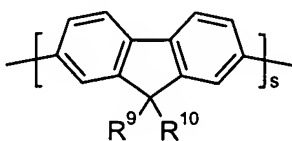
x is in the range of ~~0.005 to 1~~ 0.4 to 0.6, and y is in the range of ~~0.995 to 0~~ 0.6 to 0.4, wherein the sum of x and y is 1,




, or

, or

$R^1$  is a group of formula  
 $X^6$  is H,  $C_1$ - $C_{18}$ alkyl, cyclohexyl, or  $C_1$ - $C_{18}$ alkoxy,  
 $R^2$  is H,

$X^1$  and  $X^2$  are independently of each other a group of formula



$T$  is a group of formula

, wherein  $s$  is one or two, and  $R^9$  and  $R^{10}$  are independently of each other  $C_1$ - $C_{18}$ alkyl, which can be interrupted by one or two oxygen atoms, and  
 $R^6$  and  $R^7$  are independently of each other H,  $C_1$ - $C_{12}$ alkyl,  $C_5$ - $C_{12}$ cycloalkyl,  $C_6$ - $C_{24}$ aryl, which can be substituted by  $-O$ - $C_1$ - $C_{12}$ alkyl, or  $C_1$ - $C_{18}$ alkoxy.

**8-11. (cancelled)**

**12. (withdrawn)** An optical device or a component therefore, comprising a substrate and a polymer according to claim 1.

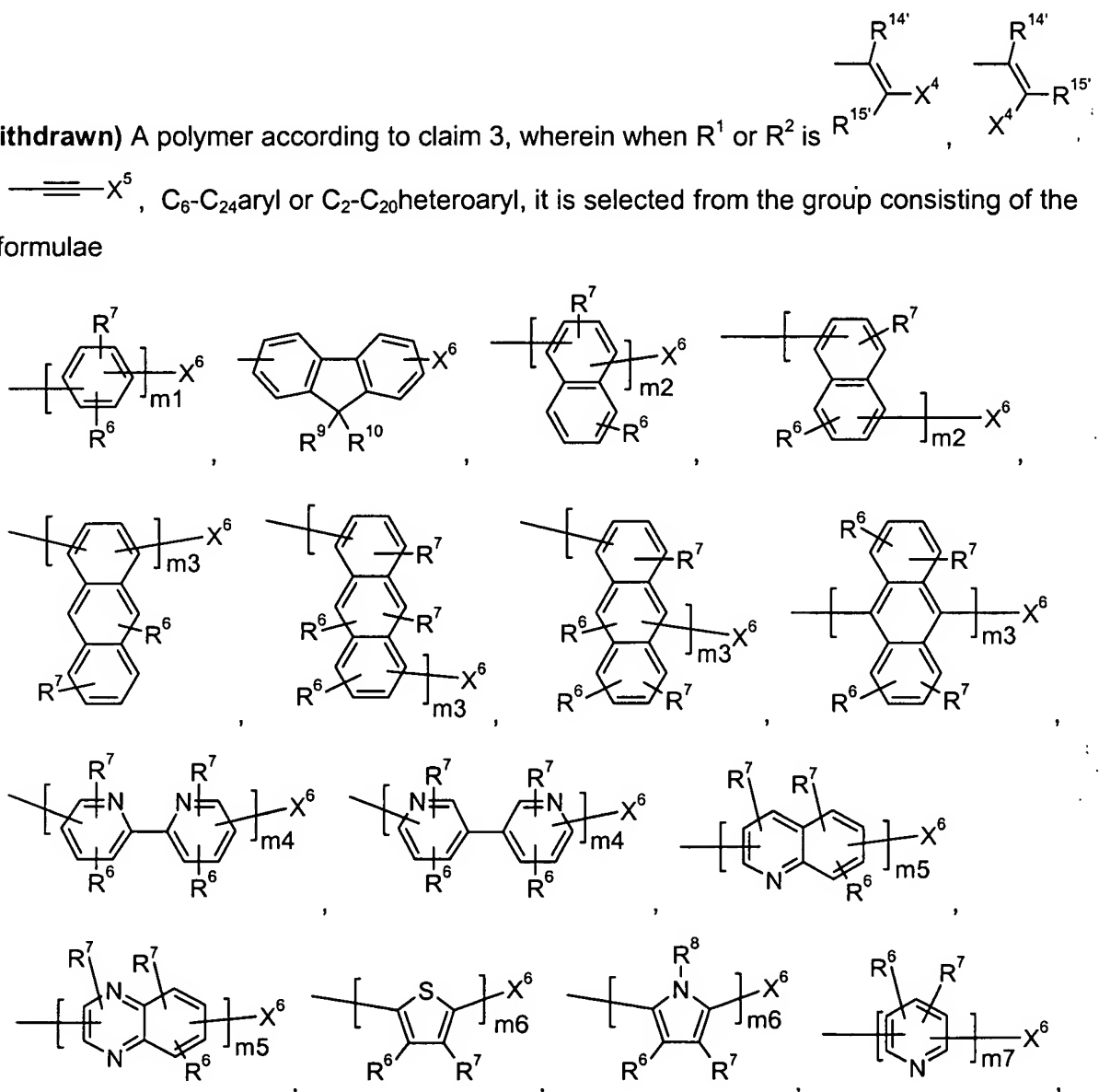
**13. (withdrawn)** An optical device according to claim 12, wherein the optical device comprises an electroluminescent device.

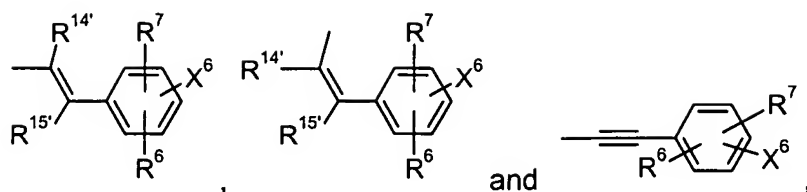


14. (withdrawn) An optical device according to claim 13, wherein the electroluminescent device comprises
- (a) a charge injecting layer for injecting positive charge carriers,
  - (b) a charge injecting layer for injecting negative charge carriers,
  - (c) a light-emissive layer located between the layers (a) and (b) comprising a polymer according to claim 1.

15. (cancelled)

16. (withdrawn) A polymer according to claim 3, wherein when  $R^1$  or  $R^2$  is  $\text{---}\equiv\text{X}^5$ ,  $\text{C}_6\text{---C}_{24}\text{aryl}$  or  $\text{C}_2\text{---C}_{20}\text{heteroaryl}$ , it is selected from the group consisting of the formulae





wherein  $m_1$ ,  $m_2$ ,  $m_3$ ,  $m_4$ ,  $m_5$ ,  $m_6$  and  $m_7$  are integers of 1 to 10,

$X^6$  is H,  $C_1$ - $C_{18}$ alkyl,  $C_1$ - $C_{18}$ alkyl which is substituted by E and/or interrupted by D,  $C_6$ - $C_{30}$ aryl, which optionally can be substituted,  $C_2$ - $C_{26}$ heteroaryl, which optionally can be substituted,  $C_2$ - $C_{18}$ alkenyl,  $C_2$ - $C_{18}$ alkynyl,  $C_1$ - $C_{18}$ alkoxy,  $C_1$ - $C_{18}$ alkoxy which is substituted by E and/or interrupted by D, or  $C_7$ - $C_{25}$ aralkyl,

$R^{11}$ ,  $R^{12}$  and  $R^{13}$  are independently of each other H,  $C_1$ - $C_{18}$  alkyl,  $C_1$ - $C_{18}$ alkyl which is substituted by E and/or interrupted by D,  $C_6$ - $C_{24}$ aryl,  $C_6$ - $C_{24}$ aryl which is substituted by E,  $C_2$ - $C_{18}$ alkenyl,  $C_2$ - $C_{18}$ alkynyl,  $C_1$ - $C_{18}$ alkoxy,  $C_1$ - $C_{18}$ alkoxy which is substituted by E and/or interrupted by D, or  $C_7$ - $C_{25}$ aralkyl.

**17-21. (cancelled)**